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EXAMINER

CARBONELLO, MICHAEL J

ART UNIT PAPER NUMBER

2622

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/046,031	Applicant(s) PROSI, RAINER FRIEDRICH	
	Examiner Michael Carbonello	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/23/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Claims 1 and 27 are objected to because of the following informalities: Claim 1, line 10 reads, "Initializing the least one memory." The examiner suggests it should be changed to read, "initializing **at** least one memory."
2. Claim 27 line 31 reads: "adding image masks to recurring element." The examiner suggests it should be changed to read, "adding image masks to recurring elements." Appropriate corrections are required.

Drawings

3. The amended drawings were received on 04/15/2002. The examiner accepts these drawings.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3-6, 16-17 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. With respect to claim 3, the phrase, "placing recurring elements that have no variable elements below them" is too ambiguous. For example, it could mean placing the recurring elements in an open memory location in the list under the current RIPped images, it could mean a series of elements layered on one another likes a stack of books, or it could mean placing elements into memory that have a free memory location

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under this current piece of data. The same objections are true for the use of similar style of phrasing in the above-mentioned claims. Appropriate corrections are required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Notredame et al.

7. Regarding claim 1, 22, and 31 Notredame et al discloses in figure 10 and 12, “forming a plurality of lists form elements within a job tile including at least a first list for recurring elements and storing the first list in rasterized form, and at least a second list for variable elements and storing the second list in non-rasterized form, identifying placement within at least one memory area of recurring and variable elements, initializing the least one memory area with stored elements from the first list; and raster image processing (RIPping) the memory area with elements from the second list.” With respect to claims 1, 22, and 31 in figure 10, using the broadest reasonable interpretation, the RIP System [1009], Page Element Cache [1011], and Page element Store [1013] would be viewed as a method of storing a first list in rasterized form. Further in figure 12, the Read Queue [1203], could be a type of storage for non– rasterized variable elements. In figure 12, The Page Elements [1013] would be method “of initializing at least one memory.” Notredame et al further teaches in column 5, lines

61-21; "The compressed image data generated by merging is decompressed into raster image data." Using the broadest reasonable interpretation, this method of merging and decompression would result in "raster image processing (RIPping) the memory area with elements of the second list." Further with respect to claim 22, using the broadest reasonable interpretation, figure 12 discloses the Page Layout Script [1103], which could be a type of job file. With respect to claim 31, the third list is RIPped (or not) and stored in memory in a similar fashion as the second list (or first list).

8. Regarding claim 2, Notredame et al discloses the methods and devices discussed above and further discloses in figure 10, "placing recurring elements in the memory areas after the step of raster image processing." Using the broadest reasonable interpretation, the RIP System [1009] connected to the Page Element Cache [1011], further connected to the Page Element Store [1013] would be a method of placing the recurring elements into memory after RIPping.

9. Regarding claim 3, Notredame et al discloses the methods and devices discussed above and further disclosed in figure 10, "placing recurring elements that have no variable elements below them." Using the broadest reasonable interpretation, the Page Element Cache [1011], connected to the Page Element Store [1013] could be a method of placing recurring elements that have no variable data below them into memory.

10. Regarding claim 4 and 16, Notredame et al discloses the methods and devices discussed above and further disclosed in figure 10, "forming the first list with recurring elements that do not have any variable elements below them." Using the broadest

reasonable interpretation, the Page Element Cache [1011], connected to the Page Element Store [1013] could be a method of placing recurring elements that do not have any variable data below them into memory.

11. Regarding claim 5, Notredame et al discloses the methods and devices discussed above and further disclosed in figure 12, "forming the second list from variable elements that have not recurring and from recurring elements that have variable elements below them." Using the broadest reasonable interpretation, the Read Queue [1203], could be viewed as forming the second list of not recurring elements that have variable elements below them.

12. Regarding claim 6 and 17, Notredame et al discloses the methods and devices discussed above and further disclosed in figure 12, "forming the second list from variable elements that have variable elements both below and above them." Using the broadest reasonable interpretation, the Read Queue [1203], could be viewed as forming the second list of not recurring elements that have variable elements above or below them.

13. Regarding claim 7, 20 and 25, Notredame et al discloses the methods and devices discussed above and further discloses in column 16, line 62-65; "wherein the step of identifying further comprises locating overlapping areas between elements." Using the broadest reasonable interpretation, "the ordering of the page elements in the ordered list of page elements making up a finished page is important if page elements overlap," could be viewed as a method to determine whether a page has overlapping areas.

14. Regarding claim 8, Notredame et al discloses the methods and devices discussed above and further discloses in column 7, line 9-12 and lines 18-19; "wherein the step of identifying further comprises identifying clip regions for calculating overlapping areas between elements." Using the broadest reasonable interpretation, the "clipping path" and, "the CT validity mask is used to define boundary blocks and interior blocks of compressed CT page element data" could be viewed as a method or of defining clipping regions used for identifying overlapping areas.

15. Regarding claim 9, Notredame et al discloses the methods and devices discussed above and further discloses in column 5, lines 34-38; "wherein the step of identifying further comprises identifying clip regions that are non-rectangular to calculate overlapping areas."

16. Regarding claim 10, Notredame et al discloses the methods and devices discussed above and further discloses in column 5, lines 46-52, "wherein the step of identifying further comprises employing information from the job file to locate overlapping areas between elements." Using the broadest reasonable interpretation, the Post Layout Script [1103] along with the data contained therein (i.e. position, overprint, and merge mode) would qualify as a type of job file used to determine overlapping areas.

17. Regarding claim 11, Notredame et al discloses the methods and devices discussed above and further discloses figure 10, "wherein the step of RIPping further comprises RIPping elements from the second list into the memory in accordance with overlapping areas designated by identifying step and element placement within the job

title." Using the broadest reasonable interpretation, the RIP system [1009] connected to the Page Element Cache [1011] connected to the Page Element Store [1013] combined with the Page Layout Script [1103], could be a method of RIPping elements and placing them into memory in accordance with overlapping areas previously designated.

18. Regarding claims 12 and 15, Notredame et al discloses the methods and devices discussed above and further discloses in column 9 lines 66-67, and column 10, lines 34-42; "further comprising the step of interpreting mark up language and page description language with the job file." Using the broadest reasonable interpretation, "The overall design of a book is specified by the designer in a page layout script" is functionally equivalent to how mark up languages would specify a page description and thus, said Page Layout Script [1103] could be viewed as type of mark up language.

19. Regarding claim 13, Notredame et al discloses the methods and devices discussed above and further discloses in figures 10 and 12, "a print engine within the system that receives digital data to create prints, an input area within the system for receiving a pre-authored job file, processing means with associated storage means within the system coupled both to the print engine and the input area, for forming and storing a plurality of lists from elements within the pre-authored job file, including a list of recurring elements and a list of variable elements, the list of recurring elements being stored in rasterized form and the list of variable elements in non-rasterized form, at least one memory area within the system and associated with the processing means, the memory area being initialized with elements from the list of recurring elements and raster image processed using elements from the list of variable elements in accordance

with element placement within the pre-authored job file, and a memory output device that allows the rasterized memory to be sent to the memory area.”

20. With respect to claim 13, in figure 10 Digital Printer [1019] is clearly a print engine to create prints, and Prepress Workstation [1005] would be an input area to receive pre-authored jobs. Further, in figure 10, Page Element Cache [1011] and Page Element Store [1013] are a processing means and a storage means that are coupled to a printing means. The Prepress Workstations [1005] and the Page Layout Script [1103] are recurring elements and variable elements, stored in both rasterized form and non-rasterized form, as is shown by some information being processed by the RIP System [1009] before going to memory, while Page Layout Script [1103] goes directly to memory. Further combining the above information from figures 10 and 12 it is clearly seen that Page Element Store [1013] and Page Layout Script [1103] are associated at the Read Thread [1105]. Further a memory output device that allows rasterized memory to be sent to the memory area is shown by The Page Element Store [1013] is able to pass through the Read Thread and be located in the Page Element Cache [1011].

21. Regarding claim 14, Notredame et al discloses the methods and devices discussed above and further disclosed in figure 12, “wherein the lists further include a second list of recurring elements that have variable elements below them, the second list of recurring elements being stored by the storage means in rasterized form and placed in the memory area on top of the variable elements in accordance with element placement within the pre-authored job file.” Using the broadest reasonable interpretation the Merge Thread [1109] and Merge Queue [1205] could be a method where recurring

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elements are placed in memory on top of variable data as information is sorted through the Read Thread [1105].

22. Regarding claim 18, Notredame et al discloses the methods and devices discussed above and further discloses in figure 13, "wherein the memory area further comprises a plurality of memory bands." Using the broadest reasonable interpretation, the Page Element Array [1305], Page Description Array [1309] and Page Element Instance Array [1307] would be considered a plurality of memory bands.

23. Regarding claim 19, Notredame et al discloses the methods and devices discussed above and further discloses in figures 10 and 13, "wherein one of the memory bands is being initialized and RIPped with data from the pre-authored job file while the another memory band is having its contents sent to the print engine by the memory output device." Using the broadest reasonable interpretation, the Prepress Workstation [1005], the Rip System [1009], The page Element Cache [1011], and the Page Element Store [1013], which is made up of the Page Element Instance Array [1307], and is connected to the Printing Device [1019], would be viewed as a method where memory bands are RIPped from the memory and sent to a printing device.

24. Regarding claim 21, Notredame et al discloses the methods and devices discussed above and further discloses in figure 3 and column 29, lines 23-28; "wherein the memory area further comprises a plurality of memory tiles." Using the broadest reasonable interpretation of "The blocks of page element" could be viewed as types of memory tiles.

25. Regarding claim 23, Notredame et al discloses the methods and devices discussed above and further discloses in figure 12, "wherein the step of RIPping further comprises pre-rasterizing all the elements allowing the memory areas to be used as a raster assembly tool." Using the broadest reasonable interpretation the Merge Queue [1205] and Merge Thread [1109] would be a type of memory that could be used as a raster assembly tool.

26. Regarding claim 24, Notredame et al discloses the methods and devices discussed above specifically in claims 1, 15, and 18, Notredame et al further discloses, "wherein the step of RIPping allows one pass assembly and RIP processing of rasterized elements and PDL elements using banded memory. " Using the broadest reasonable interpretations of these claims. Claim 1 discusses RIP processing methods. Claim 15 discusses the use of PDL elements. Lastly Claim 18 teaches the use of banded memory. Further, Notredame et al disclosed the Merge Thread [1109], which when these elements are combined could be a one pass assembly using banded memory.

27. Regarding claim 26, Notredame et al discloses the methods and devices discussed above and further discloses in column 12, lines 62-63, "wherein the step of identifying placement further comprises placing elements that contain transparent pixels." Using the broadest reasonable interpretation of the phrase "the background is transparent", and since it is known in the art that areas to be printed are made of small segments of data called pixels the clear background could be viewed as transparent pixels.

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28. Regarding claim 27, Notredame et al discloses the methods and devices discussed above and further discloses in column 1, lines 51-55, "wherein the step of forming further comprises adding image masks to recurring elements." Using the broadest reasonable interpretation, the "clipping masks" would be a type of mage mask that could be used for recurring elements.

29. Regarding claim 28, Notredame et al discloses the methods and devices discussed above and further discloses in figure 10 and column 9 lines 49-53, "wherein the step of RIPping further comprises RIPping elements on distributed computers." Using the broadest reasonable interpretation, the standard computers (Prepress Workstations [1005]) connected to a LAN, further connected to a RIP System [1009] would be a system of distributed computers for RIPping elements.

30. Regarding claim 29, Notredame et al discloses the methods and devices discussed above and further discloses in column 11, lines 22, 35-38, lines; "following the step of forming the step of storing the rasterized version of recurring elements in either a lossy or losslessly compressed mode." Using the broadest reasonable interpretation "at RIP time" would be a method of RIPping an element and lossy compression would be a lossy or losslessly compressed mode.

31. Regarding claim 30, Notredame et al discloses the methods and devices discussed above and further discloses in column 1, lines 22-23 and lines 28-29; "the step of storing elements in a raster-equivalent graphics state that allows the elements to be reused and rotated." Using the broadest reasonable interpretation of "a high degree

of freedom in the design of the personalization" the freedom of personalization could be rotated elements.

32. Regarding claim 32, Notredame et al discloses the methods and devices discussed above and further discloses in column 12, lines 59-60 and figures 9(a)-9e); "wherein the step of forming further comprises in addition to the first list and the second list, a third list containing elements that either are not pre-rasterized or elements that are rasterized and must be RIPped again due to layering consideration as well as a fourth list that are recurring but have variable elements beneath them." Using the broadest reasonable interpretation, the various layers as shown in figures 9(a)-9e) could depict various layers of recurring and elements with variable elements beneath them. Further Figure 9(a) discloses a "T" on dotted background, and figure 9(c) discloses the same T on a blank background, this could be viewed as recurring elements with variable elements beneath them.

33. Regarding claim 33, Notredame et al discloses the methods and devices discussed above and further discloses in figure 10, "wherein following the step of forming is a step of pre-rasterizing recurring elements from the first list." Using the broadest reasonable interpretation, the Prepress Workstations [1005], which are a series of standard computers, would be a used to provide a method of pre-rasterizing elements from the first list.

34. Regarding claim 34, Notredame et al discloses the methods and devices discussed above and further discloses in figure 10, "wherein the step of initializing further comprises presetting the memory areas with elements from the second list."

Using the broadest reasonable interpretation, the Page Layout Script [1103] connected to the Page Element Cache [1011], which is connected to the Page Element Store [1013] could be a method where memory is preset with elements from the second list.

35. Regarding claim 35, Notredame et al discloses the methods and devices discussed above and further discloses in figure 10, "wherein the step of RIPping further comprises RIPping the elements from the third list." Using the broadest reasonable interpretation, The RIP System [1009] connected to Prepress Workstations [1005] could be a method where Elements are RIPped from the third list.

36. Regarding claim 36, Notredame et al discloses the methods and devices discussed above and further discloses in figure 10, "further comprising the step of applying the elements from the fourth list to the memory area." Using the broadest reasonable interpretation, The Page Element Cache [1011], which is connected to the Page Element Store [1013] could be a method where elements from the fourth list are applied to memory.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

37. Goldberg et al discloses, "The present invention proposes a printing system whereby a supply of sufficient data is assured to the print engine so that the print engine can run continuously and efficiently."

38. Beckmen discloses, "A method for generating a sample print of a document in a printing system is Disclosed."

39. Dreyer et al discloses, "A method of, and system for, selectively reordering the reprinting of books on one or more electronic presses are disclosed."
40. Vidyanand discloses, "A variable data print job system that reduces the master and variable jobs into a single job sent from the client to the printer that does not require indefinite disk storage on the printer."
41. Warmus et al discloses, "An apparatus and method for controlling an electronic press develops first and second sets of template data representing associated first and second template pages, respectively, wherein each set of template data includes master data representing fixed information to be printed and area data representing an area of a page in which variable information is to be printed."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Carbonello whose telephone number is (571) 272-0625. The examiner can normally be reached on Mon –Fri between 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Michael Carbonello
Examiner
Art Unit 2622

MJC

JOSEPH R. POKRZYWA
PRIMARY EXAMINER
ART UNIT 2622

A handwritten signature in black ink, appearing to read "Joseph R. Pokrzywa", written in a cursive style.